

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
West Central Regional Office

Statement of Legal and Factual Basis
(Fact Sheet)

FOR FINAL PERMITTING ACTION
UNDER 9 VAC 5 Chapter 80 Article 1 (TITLE V-CLEAN AIR ACT)

APPLICANT:

VA-30294 AIRS ID 51-089-0035
CPFilms, Inc.
P. O. Box 5068
Martinsville, Virginia 24115

FACILITY LOCATION:

State Route 683, west of Martinsville in Henry County, Virginia
UTM Coordinates are ZONE: 17 EASTING: 593.8 km NORTHING: 4064.9 km

FACILITY DESCRIPTION:

CPFilms, Inc. is a manufacturer of solar controlled window film covered by Standard Industrial Classification (SIC) Code 2672. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. The facility is not subject to NSPS. The "Paper and Other Web Coating" MACT (40 CFR 63 Subpart JJJJ), proposed September 13, 2000 with tentative final date of February 2002, may apply. Acrylic acid, ethylene glycol, hexane, methanol, methyl ethyl ketone, toluene, and xylene are not on the list of regulated substances for 112(r).

EMISSIONS SUMMARY:

PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]	
CRITERIA POLLUTANTS	1998 ACTUAL EMISSIONS
Volatile Organic Compounds (VOCs)	713
HAPs EMISSIONS	
Acrylic acid	5
Ethylene glycol	245
Hexane	23
Methanol	6
Methyl ethyl ketone	43
Toluene	95
Xylene	0.8

TITLE V PROGRAM APPLICABILITY BASIS:

This facility has actual emissions of 713 tons per year of VOCs, 245 tons per year of ethylene glycol, 95 tons per year of toluene, 43 tons per year of methyl ethyl ketone, and 23 tons per year of hexane. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, and over 10 tons per year of a HAP, CP Films is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 9 VAC 5 Chapter 80 Article 1. CP Films has four NSR permits which cover parts of the facility.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the Commonwealth of Virginia Federal Operating Permit Regulations for the purposes of Title V of the Federal Clean Air Act (9 VAC 5 Chapter 80 Article 1), and underlying applicable requirements in other state and federal rules. Applicable requirement means all of the following as they apply to emission units in a Title V source:

- a. Any standard or other requirement provided for in the State Implementation Plan or the Federal Implementation Plan, including any source-specific provisions such as consent agreements or orders.

- b. Any term or condition of any preconstruction permit issued pursuant to 9 VAC 5-80-10, Article 8 (9 VAC 5-80-1700 et seq.) of this part or 9 VAC 5-80-30 or of any operating permit issued pursuant to 9 VAC 5 Chapter 80 Article 5, except for terms or conditions derived from applicable state requirements or from any requirement of these regulations not included in the definition of applicable requirement.
- c. Any standard or other requirement prescribed under these regulations, particularly the provisions of 9 VAC 5 Chapter 40 (9 VAC 5-40-10 et seq.), 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) or 9 VAC 5 Chapter 60 (9 VAC 5-60-10 et seq.), adopted pursuant to requirements of the federal Clean Air Act or under §111, §112 or §129 of the federal Clean Air Act.
- d. Any requirement concerning accident prevention under §112(r)(7) of the federal Clean Air Act.
- e. Any compliance monitoring requirements established pursuant to either §504(b) or §114(a)(3) of the federal Clean Air Act or these regulations.
- f. Any standard or other requirement for consumer and commercial products under §183(e) of the federal Clean Air Act.
- g. Any standard or other requirement for tank vessels under §183(f) of the federal Clean Air Act.
- h. Any standard or other requirement in 40 CFR Part 55 to control air pollution from outer continental shelf sources.
- i. Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the federal Clean Air Act, unless the administrator has determined that such requirements need not be contained in a permit issued under this article.
- j. With regard to temporary sources subject to 9 VAC 5-80-130, (i) any ambient air quality standard, except applicable state requirements, and (ii) requirements regarding increments or visibility as provided in Article 8 (9 VAC 5-80-1700 et seq.) of this part.
- k. Any standard or other requirement of the acid deposition control program under Title IV of the Clean Air Act or the regulations promulgated thereunder.
- l. Any standard or other requirement governing solid waste incineration under §129 of the Clean Air Act.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 9 VAC 5 Chapter 80 Article 1 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the state but is not federally-enforceable is identified in the draft Title V permit as such.

REQUEST FOR VARIANCES OR ALTERNATIVES:

None

PERIODIC MONITORING:

Periodic monitoring consists of the following:

- for the Eclipse Lookout boiler, since the approved fuels are natural gas and distillate oil, the permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Also, boiler emissions shall be controlled by proper operation and maintenance. The permittee must maintain records of the monthly and annual throughput of natural gas (in million cubic feet) and distillate oil (in 1000 gallons). Also, visual emission observations from the boiler shall be conducted at least once per week. If visible emissions are observed, the permittee shall either take timely corrective action such that the boiler resumes normal operation and there are no visible emissions from the exhaust stack, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure that visible emissions from the boiler do not exceed twenty (20) percent opacity.
- the permit requires that the incinerator for coating machine 29 and the thermal oxidizer for coating machines 32 and 34 be equipped with a device to continuously measure temperature. The three units must maintain a temperature of 1400°F. The devices shall be installed in an accessible location and shall be maintained such that they are in proper working order at all times.
- for coating/laminating machines 30 and 33, monitoring devices to continuously measure and record the temperatures at the catalytic incinerator inlet and outlet shall be installed. Both catalytic incinerators must maintain a minimum combustion zone temperature of 600°F. They shall be maintained and calibrated in accordance with the manufacturer's recommendation. Activity tests shall be conducted on an annual basis on the catalysts for activity level in percent of VOC destruction to determine the catalyst capability of achieving 95 percent or greater VOC destruction.

- for lines #29 and 30, records of all emission data and operating parameters necessary to demonstrate compliance, shall be maintained, including, but not limited to: annual throughput of each coating used on the silicone coating line, annual throughput of each coating used on the coater/laminator line, and annual throughput of VOCs.
- for line #31, records of all emission data and operating parameters necessary to demonstrate compliance shall be maintained, including, but not limited to: daily records demonstrating that coatings applied meet the definition of waterborne coatings, annual throughput and emissions of VOCs, and the annual amount natural gas burned in the dryer. For the natural gas-fired dryer, emission factors of 140 lbs/10⁶ ft³ for NO_x and 35 lbs/10⁶ ft³ for CO can be applied to the amount of fuel burned to calculate emission rates.
- records for coating lines 24, 26, and 27 include the annual throughput of VOCs in units of tons. All records are calculated monthly as the sum of each consecutive twelve (12) month period and shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
- since visible emissions from the polyester film coating line (#30), coating machine 29, coating/laminating machines 30, the silicone coating line (#32), and the SR UV coater and pressure sensitive adhesive coating lines (#33 and 34) shall not exceed 5% opacity, visual emission observations from these lines shall be conducted at least once per week. If visible emissions are observed, the permittee shall either take timely corrective action such that the line resumes normal operation and there are no visible emissions from the exhaust stack, or perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure that visible emissions from the line do not exceed five (5) percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed five (5) percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 5 percent or less.
- for use in required emission calculations throughout the facility, the permittee is required to maintain Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content, and solids content for each coating, adhesive, thinner, cleaning solution, or other materials used in the (*process*). In the absence of such documentation, VOC content of raw materials shall be determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to DEQ.
- for line #28, all air pollution control equipment operators shall be trained in the proper operation of the regenerative thermal oxidizer, and shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. These records shall include, but are not limited to: annual throughput of the amount of coated polyester film, calculated monthly as the sum of each consecutive twelve (12) month period.

PCD 1 through 5 have been tested and have proven compliance with the destruction efficiency requirements. PCD #6 (for Line 34) will be tested this fall (2001) within the 180 day time period in the NSR permit for the new coating line.

Test results are as follows:

PCD #1 – Line 28	Originally shared oxidizer with Line 30 – both lines inlet and oxidizer outlet tested on 10/3/91 at 95.6 % destruction
PCD #2 – Line 29	Tested on 10/2/91 at 98.5 % destruction
PCD #3 – Line 30	Separated from Line 28 oxidizer and vented to new oxidizer; tested on 7/19/94 at 97.97 % destruction
PCD #4 – Line 32	Tested on 6/6/96 at 99.38 % destruction
PCD #5 – Line 33	Tested on 6/19/97 at 99.4 % destruction

Thus, adequate periodic monitoring is attained since the permit requires proper operation and maintenance of control equipment, weekly inspections, visible emissions evaluations, records of VOCs applied, and the tracking of natural gas and #2 fuel oil. Also, the source has been inspected annually since 1985 and has been found to be in compliance each time. No visible emissions have been observed during inspections.

COMMENT PERIOD:

The public notice appeared in the Martinsville *Bulletin* on September 10, 2000.

Beginning Date: September 10, 2000

Ending Date: October 11, 2000

Written comments were received from EPA Region III in a letter from Dave Campbell dated October 6, 2000. Comments received from EPA were addressed in the proposed permit date July 27, 2001, wherein EPA had 45 days to review said changes. The proposed permit was approved by David Campbell of EPA Region III on September 10, 2001.